

**Notice of Allowability**

Application No.

09/963,284

Examiner

Man Phan

Applicant(s)

CONNOR ET AL.

Art Unit

2665

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/13/2005.
2. ☒ The allowed claim(s) is/are 1, 3-9, 11, 12, 14-19, 21-27 and 29 (Claims are renumbered as 1-24 respectively).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

***Reason for allowance***

1. This communication is in response to applicant's 12/13/2005 Amendment in the application of Connor et al. for "Methods and apparatus for retaining packet order in systems utilizing multiple transmit queues" filed 09/25/2001. The proposed amendment to the claims and response have been entered and made of record. Claims 2, 10, 13, 20, 28 have been cancelled per applicant's request, and claims 1, 6, 11, 12, 18, 24, 29 have been amended. The claims have been amended to include the allowable subject matter set forth in the office action mailed on 09/13/2005, and to better point out and more distinctly claim subject matter comprising the invention.

2. Claims 1, 3-9, 11, 12, 14-19, 21-27 and 29 are allowable as evident by applicant's amendment (Claims are renumbered as 1-24 respectively).

3. The following is an examiner's statement of reasons for allowance: The instant application is deemed to be directed to a no obvious improvement over the prior art of record. The improvement comprises the feature wherein the execution of the instructions by the plurality of processors further causes the apparatus to process the two or more transmit requests substantially in series and queue the packets together in one of the at least two transmit queues in response to a determination that the packets have equivalent flow characteristics; wherein assigning each of the at least two packets to one of the at least two transmit queues comprises correlating an output generated by an algorithm with a defined value associated uniquely with

each of the at least two transmit queues, as specifically recited in the claims.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The West et al. (US#2002/0186703) is cited to show the distributed control of data flow in a network switch.

The kappler et al. (US#6,064,677) is cited to show the multiple rate sensitive priority queues for reducing relative data transport unit delay variations in time multiplexed outputs from output queued routing mechanisms.

The Bechtolshein et al. (US#6,829,217) is cited to show the per-flow dynamic buffer management.

The Cheriton (US#6,724,721) is cited to show the approximated per-flow rate limiting.

The Lyles et al. (US#6,377,583) is cited to show the rate shaping in per-flow output queued routing mechanisms for unspecified bit rate service.

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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Man U. Phan whose telephone number is (571) 272-3149. The examiner can normally be reached Monday through Friday from 6:00 am to 3:00 pm.

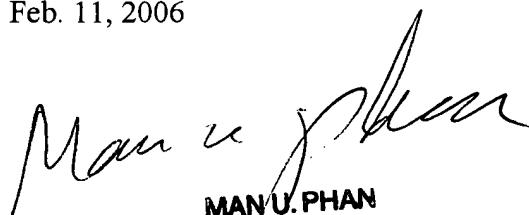
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu, can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-2600.

7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at toll free 1-866-217-9197.

MPhan

Feb. 11, 2006



MAN U. PHAN  
PRIMARY EXAMINER